

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB2004/003516

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07C233/55 C07D209/18 C07D317/60 C07D217/14 C07C237/22  
C07D215/36 C07C235/38 C07D333/60 C07C235/24 A61K31/196  
A61K31/33

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07C C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BEILSTEIN Data, CHEM ABS Data, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category ° | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No.                            |
|------------|---|--|
| X          | WO 98/34909 A1 (CENTRE INTERNATIONAL DE RECHERCHES DERMATOLOGIQUES GALDERMA (C.I.R.D.) 13 August 1998 (1998-08-13)<br><br>claims 3-7; examples 13,14<br>page 12, line 41 - page 13, line 5  | 1-3,8,<br>13,14,<br>20,21,<br>23,24,<br>29,30,33 |
| X          | DATABASE CAPLUS 'Online!<br>CHEMICAL ABSTRACTS SERVICE, COLUMBUS,<br>OHIO, US;<br>OGANESYAN, EDUARD TONIKOVICH ET AL:<br>"Derivatives of<br>6-methoxychromonyl-3-acrylanilide showing<br>antiallergic activity"<br>XP002311348<br>retrieved from STN<br>Database accession no. 1997:53544<br>abstract | 1-3,8,<br>10,13,<br>20,21,<br>23,24,29           |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### ° Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*Z\* document member of the same patent family

Date of the actual completion of the international search

20 December 2004

Date of mailing of the international search report

04/01/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Seufert, G

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category ° | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No.   |
|------------|--|---|
| X          | <p>&amp; RU 2 051 914 C1 (PYATIGORSKII FARMATSEVTICHESKII INSTITUT, TAJIKISTAN)<br/>10 January 1996 (1996-01-10)</p> <p>-----</p> <p>DATABASE CAPLUS 'Online!<br/>CHEMICAL ABSTRACTS SERVICE, COLUMBUS,<br/>OHIO, US;<br/>EJIRI, KATSUJI ET AL: "Preparation of<br/>3,4-dihydro-2H-benzopyran derivatives as<br/>allergy inhibitors and their<br/>pharmaceutical compositions"<br/>XP002311349<br/>retrieved from STN<br/>Database accession no. 1988:94385<br/>abstract<br/>&amp; JP 62 132879 A2 (KURARAY CO., LTD.,<br/>JAPAN) 16 June 1987 (1987-06-16)</p> <p>-----</p> | <p>1-3,8,<br/>10,13,<br/>14,20,<br/>21,23,<br/>24,29,33</p>   |
| X          | <p>DATABASE CAPLUS 'Online!<br/>CHEMICAL ABSTRACTS SERVICE, COLUMBUS,<br/>OHIO, US;<br/>MATSUO, KYOKO ET AL: "Preparation of<br/>3,4-dihydro-2H-benzopyrans and their use<br/>as pharmaceuticals"<br/>XP002311350<br/>retrieved from STN<br/>Database accession no. 1991:81586<br/>abstract<br/>&amp; JP 02 215778 A2 (KURARAY CO., LTD.,<br/>JAPAN; YOSHITOMI PHARMACEUTICAL<br/>INDUSTRIES, LTD.)<br/>28 August 1990 (1990-08-28)</p> <p>-----</p>   | <p>1-3,8,<br/>10,13,<br/>14,20,<br/>21,23,<br/>24,29,33</p>   |
| X          | <p>DATABASE CAPLUS 'Online!<br/>CHEMICAL ABSTRACTS SERVICE, COLUMBUS,<br/>OHIO, US;<br/>FUJISAWA, SHINICHI ET AL: "Preparation and<br/>formulation of chromone derivatives as<br/>allergy inhibitors"<br/>XP002311351<br/>retrieved from STN<br/>Database accession no. 1991:122061<br/>abstract<br/>&amp; JP 02 255672 A2 (TSUMURA AND CO., JAPAN)<br/>16 October 1990 (1990-10-16)</p> <p>-----</p>  | <p>1-4,7,8,<br/>10,13,<br/>14,20,<br/>21,23,<br/>24,29,32</p> |
| X          | <p>DATABASE CAPLUS 'Online!<br/>CHEMICAL ABSTRACTS SERVICE, COLUMBUS,<br/>OHIO, US;<br/>OGANESYAN, E. T. ET AL: "Synthesis and<br/>antiallergic activity of<br/>3-(3-chromonyl)acrylic acid derivatives"<br/>XP002311352<br/>retrieved from STN<br/>Database accession no. 1996:26942<br/>abstract</p> <p>-----</p>  | <p>1-3,8,<br/>10,13,<br/>14,20,<br/>21,23,<br/>24,29,33</p>   |

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No.                              |
|------------|---|--|
| X          | <p>&amp; KHIMIKO-FARMATSEVTICHESKII ZHURNAL ,<br/>29(10), 22-4 CODEN: KHFZAN; ISSN:<br/>0023-1134, 1995,</p> <p>-----</p> <p>DATABASE CAPLUS 'Online!<br/>CHEMICAL ABSTRACTS SERVICE, COLUMBUS,<br/>OHIO, US;<br/>HASHIMOTO, KINJI ET AL: "Naphthalene<br/>derivatives"<br/>XP002311353<br/>retrieved from STN<br/>Database accession no. 1986:33908<br/>abstract<br/>&amp; JP 60 139646 A2 (OTSUKA PHARMACEUTICAL<br/>FACTORY, INC., JAPAN)<br/>24 July 1985 (1985-07-24)</p> <p>-----</p> | <p>1-3,8,9,<br/>13,14,<br/>20,21,<br/>23,24,29</p> |
| X          | <p>DATABASE CAPLUS 'Online!<br/>CHEMICAL ABSTRACTS SERVICE, COLUMBUS,<br/>OHIO, US;<br/>TSUCHIYA, NAOKI ET AL BENZOIC ACID,<br/>2-''3--1-OXO-2- PROPENYL!AMINO!- (9CI):<br/>"Preparation of anthranilic acid<br/>derivatives as preventive or therapeutic<br/>agents"<br/>XP002311354<br/>retrieved from STN<br/>Database accession no. 2000:84754<br/>abstract<br/>&amp; WO 00/05198 A1 (TEIJIN LIMITED, JAPAN)<br/>3 February 2000 (2000-02-03)</p> <p>-----</p>                          | <p>1-4,8,9,<br/>20,21,<br/>23,24,29</p>            |
| X          | <p>DATABASE BEILSTEIN<br/>BEILSTEIN INSTITUTE FOR ORGANIC CHEMISTRY,<br/>FRANKFURT-MAIN, DE;<br/>XP002311355<br/>Database accession no. BRN 352950<br/>abstract<br/>&amp; NARANG ET AL.: J. INDIAN CHEM. SOC., 13,<br/>1936, page 260, 262,</p> <p>-----</p>  | <p>1-6,<br/>15-17</p>                              |
| X          | <p>DATABASE BEILSTEIN<br/>BEILSTEIN INSTITUTE FOR ORGANIC CHEMISTRY,<br/>FRANKFURT-MAIN, DE;<br/>XP002311356<br/>Database accession no. BRN 3431044<br/>abstract<br/>&amp; LIPOWITSCH: ZH. OBSHCH. KHIM., 23, 1953,<br/>page 811, 813,</p> <p>-----</p>   | <p>1-3,8</p>                                       |

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| Category ° | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No.                                     |
|------------|--|---|
| A          | <p>DATABASE CAPLUS 'Online!<br/>CHEMICAL ABSTRACTS SERVICE, COLUMBUS,<br/>OHIO, US;<br/>TUNARU, SORIN ET AL: "PUMA-G and HM74<br/>are receptors for nicotinic acid and<br/>mediate its anti-lipolytic effect"<br/>XP002311357<br/>retrieved from STN<br/>Database accession no. 2003:155314<br/>cited in the application<br/>abstract<br/>&amp; NATURE MEDICINE (NEW YORK, NY, UNITED<br/>STATES), 9(3), 352-355 CODEN: NAMEFI;<br/>ISSN: 1078-8956, 2003,</p> | 1-33  |
| A          | <p>WO 02/084298 A (PIKE NICHOLAS BRIAN ; WISE<br/>ALAN (GB); GLAXO GROUP LTD (GB); FOORD<br/>STEV) 24 October 2002 (2002-10-24)<br/>cited in the application<br/>the whole document</p>  | 1-33  |
| A          | <p>US 3 855 285 A (HOLLAND G)<br/>17 December 1974 (1974-12-17)<br/>column 1, line 6 - line 37<br/>table in column 19, compounds 39 and 40</p>   | 1-33  |
| P,X        | <p>DATABASE CAPLUS 'Online!<br/>CHEMICAL ABSTRACTS SERVICE, COLUMBUS,<br/>OHIO, US;<br/>XU, SHIPING ET AL: "Preparation of<br/>coumarincarboxamides as TGF-<math>\beta</math>.<br/>inhibitors"<br/>XP002311358<br/>retrieved from STN<br/>Database accession no. 2004:490719<br/>abstract<br/>&amp; WO 2004/050082 A1 (INSTITUTE OF MATERIA<br/>MEDICA, CHINESE ACADEMY OF MEDICAL<br/>SCIENCES, PEOP) 17 June 2004 (2004-06-17)</p>                           | 1-4,7,8,<br>10,13,<br>14,20,<br>21,23,<br>24,<br>29-31,33 |

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## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claims 27 and 28 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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| Patent document<br>cited in search report |    | Publication<br>date | Patent family<br>member(s)   | Publication<br>date  |
|---|----|---------------------|--|--|
| WO 9834909                                | A1 | 13-08-1998          | FR 2759368 A1<br>AU 718198 B2<br>AU 6626598 A<br>CA 2253221 A1<br>EP 0901462 A1<br>JP 11507960 T<br>US 6326510 B1                                    | 14-08-1998<br>06-04-2000<br>26-08-1998<br>13-08-1998<br>17-03-1999<br>13-07-1999<br>04-12-2001                             |
| RU 2051914                                | C1 | 10-01-1996          | NONE   |  |
| JP 62132879                               | A2 | 16-06-1987          | JP 1874464 C<br>JP 5088229 B<br>JP 62132879 A  | 26-09-1994<br>21-12-1993<br>16-06-1987   |
| JP 2215778                                | A2 | 28-08-1990          | JP 2215778 A   | 28-08-1990   |
| JP 2255672                                | A2 | 16-10-1990          | JP 2255672 A   | 16-10-1990   |
| JP 60139646                               | A2 | 24-07-1985          | JP 1651663 C<br>JP 3014296 B<br>JP 60139646 A  | 30-03-1992<br>26-02-1991<br>24-07-1985   |
| WO 0005198                                | A1 | 03-02-2000          | AT 278661 T<br>AU 750670 B2<br>AU 4800499 A<br>CA 2337098 A1<br>CN 1319086 T<br>DE 69920923 D1<br>EP 1101755 A1<br>US 2003232811 A1<br>US 6649656 B1 | 15-10-2004<br>25-07-2002<br>14-02-2000<br>03-02-2000<br>24-10-2001<br>11-11-2004<br>23-05-2001<br>18-12-2003<br>18-11-2003 |
| WO 02084298                               | A  | 24-10-2002          | EP 1377834 A2<br>WO 02084298 A2  | 07-01-2004<br>24-10-2002   |
| US 3855285                                | A  | 17-12-1974          | US 3856951 A   | 24-12-1974   |
| WO 2004050082                             | A1 | 17-06-2004          | NONE   |  |